

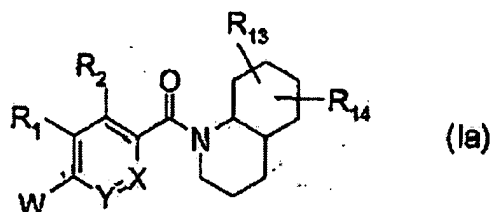
Amendments to the Claims

This Listing of Claims will replace all prior versions, and listings, of claims in the specification:

Listing of Claims:

1.-6. (Canceled)

7. (Currently Amended) A compound having the formula



wherein

R₁ and R₂ are independently hydrogen, cyano, halo, nitro, ~~optionally substituted amino~~, C₁₋₄ alkylamino, CF₃, C₁₋₄ alkyl, phenyl substituted C₁₋₄ alkyl, trifluoromethyl, -CO₂H, CO₂C₁₋₄ alkyl, C(O)NHC₁₋₄ alkyl, or C₁₋₄-alkoxy, or

R₁ and R₂ combined together with the carbon atoms to which they are attached form an optionally substituted ~~6-membered aromatic~~ phenyl ring;

W is -NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇ or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl; or

~~—R₆ and R₄ are alkylene which combined together with the nitrogen atom to which R₆ is attached and the carbon atoms to which W and R₄ are attached form a 5-membered ring;~~

R₆ is ~~optionally substituted~~ C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, ~~alkyl and arylsulfonyl, sulfonamido and heterocycloyl;~~

R₈ and R₉ are each, independently, a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C₁₋₄ alkoxyl, amino, nitro or cyano; is ~~optionally substituted alkyl, aralkyl or heteroaralkyl;~~

~~—R₉ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl; or~~

W and R₁ combined together with the carbon atoms they are attached to form a 6-membered ~~aromatic~~ phenyl ring optionally substituted with alkyl, alkoxy, aryl, heteroaryl, halo, -NR₅Z, -C(O)NR₆R₇, -OR₉ or -OC(O)NR₆R₇;

Z is -C(O)R₈, -C(O)OR₆, -C(O)NR₆R₇, -C(S)NR₆R₇, -S(O)₂R₆, or -R₈;

X is CH;

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted C₁₋₄ alkyl~~; or a pharmaceutically acceptable salt thereof.

8. (Currently Amended) The compound according to claim 7 wherein

R₁ is hydrogen;

R₂ is hydrogen, chloro, methoxy, ethoxy, propoxy ~~or optionally substituted amino or C₁₋₄ alkylamino~~;

W is - NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl;

R₈ is ~~optionally substituted C₁₋₄ alkyl~~, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidiny, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxy carbonyl, alkylthiono, alkyl and arylsulfonyl, sulfonamido and heterocycloyl;

R₈ is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidiny, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; ~~is optionally substituted alkyl, aralkyl or heteroaralkyl~~;

~~R₈ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl~~;

X is CH;

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl~~; or a pharmaceutically acceptable salt thereof.

9. (Currently Amended) The compound according to claim 7 wherein

R₁ is methyl, methoxy, ~~or optionally substituted amino or C₁₋₄ alkylamino~~;

R₂ is hydrogen;

W is -NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl;

~~R₆ is optionally substituted C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, alkyl- and arylsulfonyl, sulfonamido and heterocycloyl;~~

~~R₈ is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; is optionally substituted alkyl, aralkyl or heteroaralkyl;~~

~~R₉ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl;~~

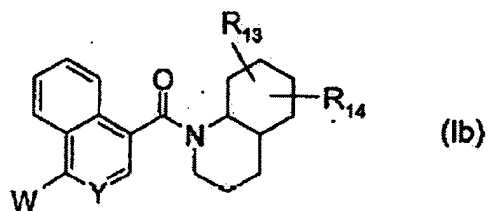
X is CH;

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl optionally substituted lower alkyl; or a pharmaceutically acceptable salt thereof.

10-11. (Canceled)

12. (Currently Amended) The compound according to claim 7 of the formula



wherein

W is -NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl;

~~R₆ is optionally substituted C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, alkyl- and arylsulfonyl, sulfonamido and heterocycloyl;~~

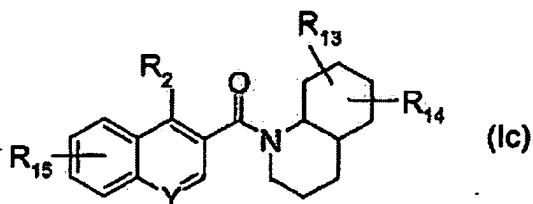
~~R₈ is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted~~

with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; ~~is optionally substituted alkyl, aralkyl or heteroaralkyl;~~

~~R₉ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl;~~

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl;~~ or a pharmaceutically acceptable salt thereof.

13. (Currently Amended) The A compound according to claim 7 of the formula



wherein

R₂ is hydrogen, halo or C₁₋₄ alkoxy;

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl;~~

R₁₅ is hydrogen, -NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, -OR₉ or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl;

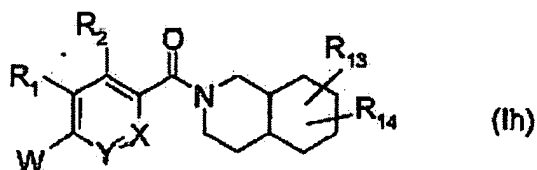
R₆ is ~~optionally substituted~~ C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxy carbonyl, alkylthiono, ~~alkyl and arylsulfonyl, sulfonamido and heterocycloyl;~~

R₈ and R₉ are each, independently, a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; is ~~optionally substituted alkyl, aralkyl or heteroaralkyl;~~

~~R₉ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl;~~ or a pharmaceutically acceptable salt thereof.

- 14-17. (Canceled).

18. (Currently Amended) The compound having ~~according to claim 3 of the formula~~



wherein

R₁ and R₂ are independently hydrogen, halo, optionally substituted amino, C₁₋₄ alkylamino, C₁₋₄ alkyl or C₁₋₄ alkoxy; or

R₁ and R₂ combined together form an optionally substituted phenyl ~~6-membered~~ aromatic ring;

W is -NR₅C(O)R₆, NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl; or

~~R₅ and R₇ are alkylene which combined together with the nitrogen atom to which R₅ is attached and the carbon atoms to which W and R₇ are attached form a 5-membered ring;~~

R₆ is ~~optionally substituted~~ C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, ~~heteroaryl~~, ~~cycloalkyl~~, ~~aralkyl~~ or ~~heteroaralkyl~~, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, ~~alkyl~~ and arylsulfonyl, sulfonamido and heterocycloyl;

~~R₈ and R₉ are each, independently, a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano;~~ R₈ and R₉ are each, independently, a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; ~~is optionally substituted alkyl, aralkyl or heteroaralkyl;~~

~~R₆ is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl; or~~

W and R₁ combined together with the carbon atoms to which they are attached form a 6-membered ~~aromatic~~ phenyl ring optionally substituted with alkyl, alkoxy, aryl, heteroaryl, halo, -NR₅Z, -C(O)NR₆R₇, -OR₉ or -OC(O)NR₆R₇ in which

Z is -C(O)R₆, -C(O)OR₆, -C(O)NR₆R₇, -C(S)NR₆R₇, -S(O)₂R₆, or -R₈;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl~~;

X is CH;

Y is CH; or a pharmaceutically acceptable salt thereof.

19. (Currently Amended) The compound according to claim 18 wherein

R₁ is hydrogen;

R₂ is hydrogen, chloro, methoxy, ethoxy, propoxy or ~~optionally substituted amino~~ or C₁₋₄ alkylamino;

W is $-NR_5C(O)R_6$, $-NR_5C(O)OR_6$, $-NR_5C(O)NR_6R_7$, $-NR_5C(S)NR_6R_7$, $-NR_5S(O)_2R_6$, $-NR_5R_8$, $-C(O)NR_6R_7$, or $-OC(C)NR_6R_7$ in which

R_5 and R_7 are independently hydrogen or methyl;

R_6 is optionally substituted C_{1-4} alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, alkyl- and arylsulfonyl, sulfonamido and heterocycloyl;

R_8 is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C_{1-4} alkoxy, amino, nitro or cyano; is optionally substituted alkyl, aralkyl or heteroaralkyl;

R_9 is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl; or

X is CH;

Y is CH;

R_{13} and R_{14} are independently hydrogen, hydroxy or methyl optionally substituted lower alkyl; or a pharmaceutically acceptable salt thereof.

20. (Currently Amended) The compound according to claim 18 wherein

R_1 is methyl, methoxy or optionally substituted amino;

R_2 is hydrogen;

W is $-NR_5C(O)R_6$, $-NR_5C(O)OR_6$, $-NR_5C(O)NR_6R_7$, $-NR_5C(S)NR_6R_7$, $-NR_5S(O)_2R_6$, $-NR_5R_8$, $-C(O)NR_6R_7$, or $-OC(O)NR_6R_7$ in which

R_5 and R_7 are independently hydrogen or methyl;

R_6 is optionally substituted C_{1-4} alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, alkyl- and arylsulfonyl, sulfonamido and heterocycloyl;

R_8 is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C_{1-4} alkoxy, amino, nitro or cyano; is optionally substituted alkyl, aralkyl or heteroaralkyl;

R_9 is hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl; or

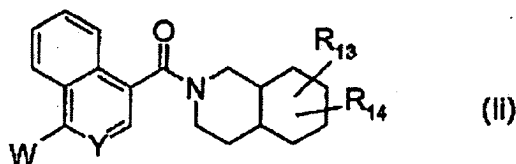
X is CH;

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl~~; or a pharmaceutically acceptable salt thereof.

21. (Canceled).

22. (Currently Amended) The compound according to claim 18 of the formula



wherein

W is -NR₅C(O)R₆, -NR₅C(O)OR₆, -NR₅C(O)NR₆R₇, -NR₅C(S)NR₆R₇, -NR₅S(O)₂R₆, -NR₅R₈, -C(O)NR₆R₇, -OR₉ or -OC(O)NR₆R₇ in which

R₅ and R₇ are independently hydrogen or methyl;

R₆ is ~~optionally substituted~~ C₁₋₄ alkyl, phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or aryl, heteroaryl, cycloalkyl, aralkyl or heteroaralkyl, wherein said aryl is each of which may be optionally substituted by one to four substituents such as halo, hydroxy, alkoxy, alkanoyl, alkanoyloxy, optionally substituted amino, thiol, alkylthio, nitro, cyano, carboxy, carboxyalkyl, alkoxycarbonyl, alkylthiono, ~~alkyl and~~ arylsulfonyl, sulfonamido and heterocycloyl;

R₈ is a phenyl, naphthyl, thienyl, furanyl, pyrrolyl, morpholinyl, piperidinyl, piperazinyl, pyridinyl, benzothiophenyl, benzodioxoyl or a cycloalkyl, which may be optionally substituted with halogen, C₁₋₄ alkoxy, amino, nitro or cyano; is optionally substituted alkyl, aralkyl or heteroaralkyl;

R₉ is ~~hydrogen, optionally substituted alkyl, aralkyl, heteroaralkyl or alkanoyl;~~ or

Y is CH;

R₁₃ and R₁₄ are independently hydrogen, hydroxy or methyl ~~optionally substituted lower alkyl~~; or a pharmaceutically acceptable salt thereof.

23-24. (Canceled)

25. (Withdrawn) A method for the inhibition of 11 β -hydroxysteroid dehydrogenase type 1 (11 β -HSD1) oxoreductase activity in mammals, which method comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

26. (Withdrawn) A method to control glucocorticoid concentration in mammals which method comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

27. **(Withdrawn)** A method according to claim 26, which comprises lowering intracellular and hepatic glucocorticoid concentrations, increasing insulin sensitivity in the adipose tissue and in the muscle, reducing lipolysis and free fatty acid production in the adipose tissue, and inhibiting hepatic gluconeogenesis.

28. **(Withdrawn)** A method for the treatment of conditions associated with 11 β -HSD1 oxoreductase activity in mammals which comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

29. **(Withdrawn)** A method for the treatment of glucocorticoid associated disorders in mammals which method comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

30. **(Withdrawn)** A method according to claim 29, which comprises administering a compound of claim 1 in combination with a therapeutically effective amount of insulin, insulin derivative or mimetic, insulin secretagogue, insulinotropic sulfonylurea receptor ligand, insulin sensitizer, biguanide, alpha-glucosidase inhibitor, GLP-1, GLP-1 analog or mimetic, DPP-IV inhibitor, hypolipidemic agent, anti-obesity agent, cholestyramine, fibrate, nicotinic acid, or aspirin.

31. **(Withdrawn)** A method for the treatment of impaired glucose tolerance in Type 2 diabetes which method comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

32. **(Withdrawn)** A method for the treatment of Syndrome-X, dyslipidemia, hypertension and central obesity which method comprises administering to a mammal in need thereof a therapeutically effective amount of a compound of claim 1.

33. **(Previously Presented)** A pharmaceutical composition, comprising:
the compound of claim 7 in a therapeutically effective amount, in combination with one or more pharmaceutically acceptable carriers.

34-39. **(Canceled)**

40. **(New)** A pharmaceutical composition, comprising:
the compound of claim 18 in a therapeutically effective amount, in combination with one or more pharmaceutically acceptable carriers.